



# MEMORANDUM

**BOULDER CITY  
CITY COUNCIL**

**MAYOR**  
RODNEY WOODBURY

**COUNCIL MEMBERS:**  
WARREN HARHAY  
PEGGY LEAVITT  
KIERNAN MCMANUS  
RICH SHUMAN

**DATE:** May 8, 2019  
**TO:** Alfonso Noyola, ICMA-CM, City Manager  
**FROM:** Dennis Porter, P.E., Utilities Director  
**SUBJECT:** Eldorado Valley Waterline



**MEETING LOCATION:**  
CITY COUNCIL CHAMBER  
401 CALIFORNIA AVENUE  
BOULDER CITY, NV 89005

**MAILING ADDRESS:**  
401 CALIFORNIA AVENUE  
BOULDER CITY, NV 89005

**WEBPAGE:**  
WWW.BCNV.ORG



**CITY MANAGER:**  
ALFONSO NOYOLA, ICMA-CM

**CITY ATTORNEY:**  
STEVEN L. MORRIS, ESQ

**CITY CLERK:**  
LORENE KRUMM, MMC, CPO

**COMMUNITY DEVELOPMENT  
DIRECTOR:**  
MICHAEL MAYS, AICP

**PUBLIC WORKS DIRECTOR:**  
KEEGAN LITRELL, P.E.

**UTILITIES DIRECTOR:**  
DENNIS PORTER, P.E.

**POLICE CHIEF:**  
TIM SHEA

**FIRE CHIEF:**  
KEVIN NICHOLSON

**FINANCE DIRECTOR:**  
DIANE PELLETIER, CPA

**PARKS & RECREATION DIRECTOR**  
ROGER HALL

In an effort to address the information in Matt Di Teresa's memo (attached), I have prepared some details relating to the history and contractual obligation to build the waterline as well as information regarding the design criteria used to design and construct the Eldorado Valley Waterline project.

## Timeline of Events:

- November 4, 2003-City enters into "Water Service Contract" with Solargenix Energy LLC.
- April 24<sup>th</sup>, 2007-City enters into "Amended and Restated Water Service Contract" with Nevada Solar One, LLC (affiliate of Solargenix Energy LLC) in order to increase the amount of water to be delivered.
  - Continuous flow rate of 450 gpm at all times.
  - Minimum pressure of 25 psi at all times.
  - 415 acre feet allocated to project.
  - Nevada Solar One to design and construct new 14-inch waterline from 93/95 intersection to Silver State Materials quarry.
- May 8<sup>th</sup>, 2007-City council approves "Cost Allocation Agreement" with Acciona Solar Power (indirect Corporate Parent Company of Nevada Solar One LLC). Agreement was never executed.
- July 10<sup>th</sup>, 2012-City council approves "Water Line Construction", B.C. Agreement No. 12-1429 with Acciona Solar Power Inc (ASP) (formerly Solargenix Energy) and Second Amended and Restated Water Service Contract No. 12-1430 for Nevada Solar One.
  - 12-1429 transferred obligation to construct the new waterline from Nevada Solar One to Acciona Solar Power.

- Deadline to construct new raw water line from SNWA raw water line at 93/95 to Silver State Materials site was extended to Dec 31, 2012.
    - In Lieu of constructing new water line Acciona given option to pay City \$2M for the water line by July 15<sup>th</sup>, 2012.
    - If ASP exercises its option on the property in energy zone on the south side of Eldorado Valley then ASP has to extend waterline from Silver State Materials to its site. ASP would pay the City a \$2M connection charge fee if they construct a project that utilizes the Raw Water Line Extension built by the City.
  - 12-1430 Water Service Contract for Nevada Solar One.
    - Potable Water service commitment increased from 450 to 500gpm.
    - Requirement of second waterline is not an NSO obligation.
    - City can reduce potable from 415 acre feet per year to 50 acre feet if City provides 425 acre feet of raw water.
- October 28<sup>th</sup>, 2014-First Amendment to the Water Line Construction Agreement with Copper Mountain Solar 4, LLC (CMS4). CMS4 is a successor in interest to Acciona.
  - Sets permitted water usage to 295 acre feet and 200gpm during construction and 8 acre feet and 67gpm thereafter.
  - Clarifies who CMS4 can assign the Water line agreement to (Sempra entities).
  - Deletes requirement for payment in lieu of construction since Acciona made the \$2M payment to the City prior to CMS4 acquisition of the Water line Agreement.
- Fall 2017-Design started for Eldorado Water Line Extension Phase I and II.
- April 10<sup>th</sup>, 2018-City Council was advised that CIP for Utility Funded portion of Eldorado Water Line Extension was reduced from \$3M to \$1M.
- April 19<sup>th</sup>, 2018-Eldorado Water line Extension Phase I was advertised for Bid.
- May 24<sup>th</sup>, 2018-Eldorado Water line Extension Phase II was advertised for Bid.
- June 12<sup>th</sup>, 2018-City Council approved Bid of El Dorado Water Line Extension-Phase I to Tab Constructors for \$1,636,596. Staff report showed funding from \$2,000,000 received from Acciona allocated as follows:
  - Construction management      \$ 200,000
  - Survey services                      \$ 14,160
  - Document control                    \$ 9,010
  - Tab Constructors                    \$1,636,596
  - Total                                      \$1,860,246
- July 10<sup>th</sup>, 2018-City Council approved bid for Eldorado Water Line Extension-Phase II to Wadley Construction for \$598,298. Staff reports funding was provided by the \$1,000,000 in Utility Fund.
  - Construction Management      \$120,000
  - Survey Services                      \$ 9,000
  - Document Control                    \$ 5,500
  - Wadley Construction                \$598,298
  - Total                                      \$732,798
- April 29<sup>th</sup>, 2019-Phases I and II of the Water Line Extension are approximately 95% complete at this time. An additional \$250,000 will be required to complete Phase III of the Water Line

Extension, which are the installation of the Pressure Reducing Valves, which are necessary to make the system operate at acceptable system pressures.

Eldorado Valley Waterline Design Criteria:

Boulder City currently provides water utilizing the existing 14-inch waterline to 21 Eldorado Valley customers with total contracted delivery amounts of 2,324,228 gallons per day or 1614 gallons per minute and a maximum demand of 1,785 gallons per minute. The maximum capacity of the 14-inch diameter pipeline, per the 2007 Eldorado Valley Energy Zone Water Line Capacity Study, performed by HDR Engineering is 2,040 gallons per minute. Operating the 14-inch waterline at flow rates higher than 2,040 gallons per minute is not recommended due to higher velocities that would accompany the increased flow rates. Therefore, there is limited capacity available in the 14-inch pipeline to add additional customers.

In addition to capacity limitations in the waterline, there is limited electrical capacity to add customers as well. Six inch conduit and three-phase conductor were installed when the 14-inch waterline was constructed to provide power to the pressure reducing stations and the cellular tower located on Highway 95/ I-11 intersection. Any appreciable development that would occur anywhere along the Highway 95 corridor south towards the solar fields would require a significant investment in electrical and sewer infrastructure. Currently there is no sewer located anywhere along the Highway 95 corridor and a new sewer interceptor, lift station, and upgrades to the existing wastewater treatment plant would be required. Currently there are no projects in the City's Capital Improvement Plan to add the infrastructure that would be required to further develop the Highway 95 corridor south.

Fire hydrant locations and spacing were determined based upon the 2012 International Fire Code Section C105 (adopted by Boulder City), which requires spacing no more than every 1,000 feet to provide for transportation hazards, and in conformance with the approved Uniform Design and Construction Standards for Potable Water Systems. In addition to the fire hydrants providing fire protection along Highway 95 where accidents can and do occur, the fire hydrants also provide a mechanism for flushing for water quality management as well as draining in the event the water main is in need of repair and/or maintenance.

## PART 2 WATER LINE TO THE ELDORADO VALLEY

**On June 11, the community of Boulder City has an opportunity to vote for change. The BCCA wants to provide voters with factual information that concerns every citizen. Please read through and decide, are you ready for change, or do you want more of the same?**

### WATER LINE

Provided by Matt Di Teresa

Two years ago, I was told by the City Engineer and the Director of Community Development that the 14 inch waterline supplying all of the Eldorado Valley water users had been running at capacity for years and that a second waterline was needed. I looked up flow capacity for a 14 inch PVC pipe operating at 120 pounds per square inch (psi) and found that number to be conservatively 4000 gallons per minute (gpm) or 240,000 gallons per hour (gph).

I was skeptical at that time that we could possibly be sending that much water to the Eldorado Valley, so I went to City Hall and asked Utility Billing for all of the water meter readings for all EV water users for a period of 12 months. They provided the numbers two days later and I selected the period from July 2016 to June 2017 in order to determine average monthly water usage for the following:

Nevada Solar One (3 meters)

SDG&E (2 meters)

Brian D Arnauld

Eldorado Land Corp

Muller Construction

SoCal Edison

LADWP

SEMPRA

Copper Mtn One (2 meters)

## Copper Mtn Two

I added the meter readings, then divided by the number of months sampled to ascertain monthly water usage. I then divided by 30 to deduce daily usage, then by 24 to get hourly usage.

The result showed that the average demand of all of the EV users per hour combined was approximately 17,000 gallons. As previously stated, the existing 14 inch waterline operating at 120 psi should supply 240,000 gallons per hour. I have since learned that the existing waterline actually operates at 180 psi, further enhancing the discrepancy between the city's claims and actual usage. To give the city further benefit of the doubt, I selected the peak monthly water usage of all of the EV users and once again ran the numbers (peak demand occurred during varying months for each user). The result came out to approximately 37,000 gallons per hour, still nowhere near the 240,000 gallon per hour of available capacity.

Why the discrepancy? Why the misinformation? What is the new 16 inch waterline actually for? It is obviously not to meet the demands of the current EV water users, as we have been told.

I will gladly share the information and methodology used to come to this conclusion with anyone who is interested.

**BCCA hosted a Primary Forum for the Mayoral candidates in February. Incumbent, Mayor Rod Woodbury made a claim that the Boulder Dam Gateway Project is dead. What he failed to provide is how is this project dead? The City Council did NOT vote on terminating the project. Mayor Woodbury requested that the project be TABLED. This project that would create a "New" Boulder City in the Eldorado Valley, has not been voted away, and can come back for a re-visit at anytime. The only elements needed for development in the Eldorado Valley are Water (in process), Electricity (existing), and Sewage (not yet). Please join us in voting for a change, vote for Kiernan McManus, James Howard Adams, and Claudia Bridges.**